

REMARKS

Claims 1 and 5 are amended. Claims 7 and 8 are new. No new subject matter is added. Claims 1-8 are now pending in the case. Reconsideration and allowance of the pending claims is requested in light of the following remarks.

Erroneous Information Disclosure

The 29 documents filed on 4 February 2004 do not belong with this application. It appears that the 29 documents were placed in the application file by error.

Supplemental Declaration

A supplemental declaration is found in the Appendix that is attached following page 7 of this paper.

Drawings

Figure 1 is amended to include the word "Conventional."

Allowable Subject Matter

Claim 4 is objected to as being dependent upon a rejected base claim, but is otherwise indicated to be allowable if rewritten in independent form to include all the subject matter of the base claim and any intervening claim.

In keeping with this suggestion of allowable subject matter, new claim 7 is added. Claim 7 contains the features of original claims 1 and 2. Claim 8 depends from claim 7, and is allowable for at least that reason.

In the Claims

The amendment of claim 1 is fully supported by the original application at, e.g., page 4, lines 1-5.

The amendment of claim 5 is fully supported by the original application at, e.g., claim 4.

Claim Rejections – 35 U.S.C. § 112

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicant disagrees.

Claim 5 is amended to incorporate the examiner's suggestion for particularly pointing out and distinctly claiming the subject matter of the invention. Claim 6 depends from claim 5.

Claim Rejections – 35 U.S.C. § 103

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over the Acknowledged Prior Art (APA) of FIG. 1 in view of U.S. Patent No. 5,119,683 to Deutsch, et al. ("Deutsch") and U.S. Patent No. 5,433,344 to Fulton, et al. ("Fulton"). The applicant disagrees.

Claim 1 recites an interlocker configured to sense the open/shut state of the at least one solenoid valve by sampling the driving voltage generated by the driver and comparing it to a reference voltage.

APA was recognized as failing to teach this feature.

Contrary to this feature, Deutsch specifically teaches that the flyback pulses are generated by the solenoid (see, e.g., column 2, lines 49-50; column 3, lines 12-13). Thus, Deutsch also fails to teach or suggest an interlocker configured to sense the open/shut state of the at least one solenoid valve by sampling the driving voltage generated by the driver and comparing it to a reference voltage.

Contrary to this feature, Fulton fails to teach or suggest that an interlocker is configured to sense the open/shut state of the at least one solenoid valve by sampling the driving voltage generated by the driver and comparing it to a reference voltage.

Consequently, the combination of APA, Deutsch, and Fulton fails to establish *prima facie* obviousness for claim 1 because it does not teach or suggest all the features recited in the claim. MPEP 2143.03.

Claims 1-3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over the APA of FIG. 1 in view of JP 2000-161532 to Tetsuya, et al. ("Tetsuya") and Fulton. The applicant disagrees.

Regarding claim 1, it was explained above that neither APA nor Fulton teach or suggest the recited feature of an interlocker configured to sense the open/shut state of the at least one solenoid valve by sampling the driving voltage and comparing it to a reference voltage.

Furthermore, while Tetsuyana appears to determine whether a valve is operating normally or not (see, e.g., Abstract), Tetsuyana fails to teach or suggest that “operating normally” includes sensing the open/shut state of the solenoid valve by sampling the driving voltage and comparing it to a reference voltage.

Claims 2 and 3 depend from claim 1. Consequently, claims 2-3 are allowable over the combination of APA, Tetsuya, and Fulton at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

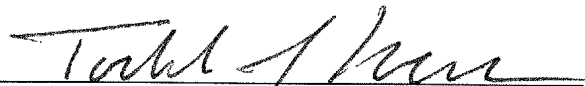
Claim 5 recites preventing gas flow from a gas source to another gas source. As was recognized with claim 4, the prior art of record fails to teach or suggest this feature. Consequently, the prior art of record fails to establish *prima facie* obviousness for claim 5. MPEP 2143.03.

Claim 6 depends from claim 5. Consequently, claim 6 is allowable over the combined prior art of record at least because any claim that depends from a nonobvious independent claim is also nonobvious. MPEP 2143.03.

Conclusion

For the reasons presented above, reconsideration and allowance of the pending claims is requested. Please telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,
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